Park Environmental
2140 PROFESSIONAL DRIVE
SUITE 130
ROSEVILLE, CA 95661

FAX TRANSMITTAL

TO: Ms. Jennifer Eberle

FAX #: 510 569-4757

FROM: Dick Zipp

PARK ENVIRONMENTAL CORPORATION
2140 PROFESSIONAL DRIVE, SUITE 130
ROSEVILLE, CA 95661

TEL: (916)782-8980 OR 1-800-753-7401
FAX: (916)784-7496

THIS TRANSMITTAL CONTAINS A TOTAL OF _____ PAGES INCLUDING THIS COVER SHEET.

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT US AT THE ABOVE NUMBER.

COMMENTS: I hope this helps. I will provide more detail at tomorrow's meeting.

Thanks,

Dick Zipp

Park
Environmental

September 16, 1992

Jennifer Eberle
Alameda County
Hazardous Materials Division
Dept. of Environ. Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: VAPOR EXTRACTION TREATABILITY TESTING
CARNATION COMPANY
1310 14TH STREET
OAKLAND, CALIFORNIA

Dear Ms. Eberle:

Thank you again for agreeing to meet with Mr. Walter Carey of Nestle Corporation, Mr. Rich Hiett of the RWQCB and myself on such short notice. We are trying to obtain conceptual approval for implementing a vapor extraction remediation program to address the Total Petroleum Hydrocarbon (TPH) compounds that have been identified near the northwest corner of the subject property.

3hr. test

Park Environmental Corporation (Park) conducted vapor extraction feasibility testing at the site on July 22, 1992. The objective of the testing was to demonstrate that vapor extraction techniques would effectively remove the volatile organic compounds present in the vadose zone, the capillary fringe, and as free product on the water table. Four existing monitoring wells were selected for testing (Fig. 1). They are all located in the vicinity of the free product plume, as identified by Harding Lawson Associates (HLA) in their October to December Quarterly Monitoring Report dated March 12, 1992.

VOCs vs HCs?

The testing consisted of applying a vacuum to the selected well and monitoring the rate of flow from that well, the vacuum at the well head, and the TPH concentrations measured using a Century 128 OVA. Each well was tested for approximately thirty (30) minutes. Nearby wells were monitored with manometers during each test period to verify continuity between wells and to provide an estimate of the radii of influence. At the completion of each test a vapor sample was collected for analysis for both TPH and BTEX. The analytical test results are provided on the attached table.

The four tests demonstrated that there is continuity in the vadose zone throughout the area where free product has been identified. Just using a 92 cfm regenerative blower pulling approximately sixty (60) inches of water vacuum, we were able to monitor vacuum

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continuity in excess of fifty (50) feet from the extraction well. Vapor concentrations ranged from 10,000 to 42,000 ppmv as gasoline during this brief test period. Given that wells were arbitrarily selected for testing and that we were unable to open most of the well covers, we believe that the testing conducted clearly shows that vapor extraction techniques can be used at this site to abate the TPH in the subsurface.

= TPH-g? vs VOC ?

Park has proposed to implement a vapor extraction program utilizing the existing wells. The number and distribution of the existing wells provides for a great deal of flexibility in effecting site remediation. The manifold system will consist of Schedule 40 PVC and flexible pipe connected to a thermal oxidizer vapor treatment unit. Because the site is a non-operating facility and twenty-four hour security ispresent, the manifold system will be placed on the existing pavement.

Park has recommended that the existing groundwater and free product monitoring program be continued to evaluate the effects that the remediation program is having on the site.

This letter has been prepared to briefly explain the program that has been proposed. A detailed work plan will need to be prepared and submitted for agency approval prior to the implementaion of any program. We trust this letter and attachments adequately prepare you for tomorrow's 9:00 a.m. meeting at the RWQCB.

Thank you again for your cooperation in this matter.

Sincerely,

Park Environmental Corporation

Richard J. Zipp

Richard J. Zipp, R.G., C.E.G.
Principal Hydrogeologist

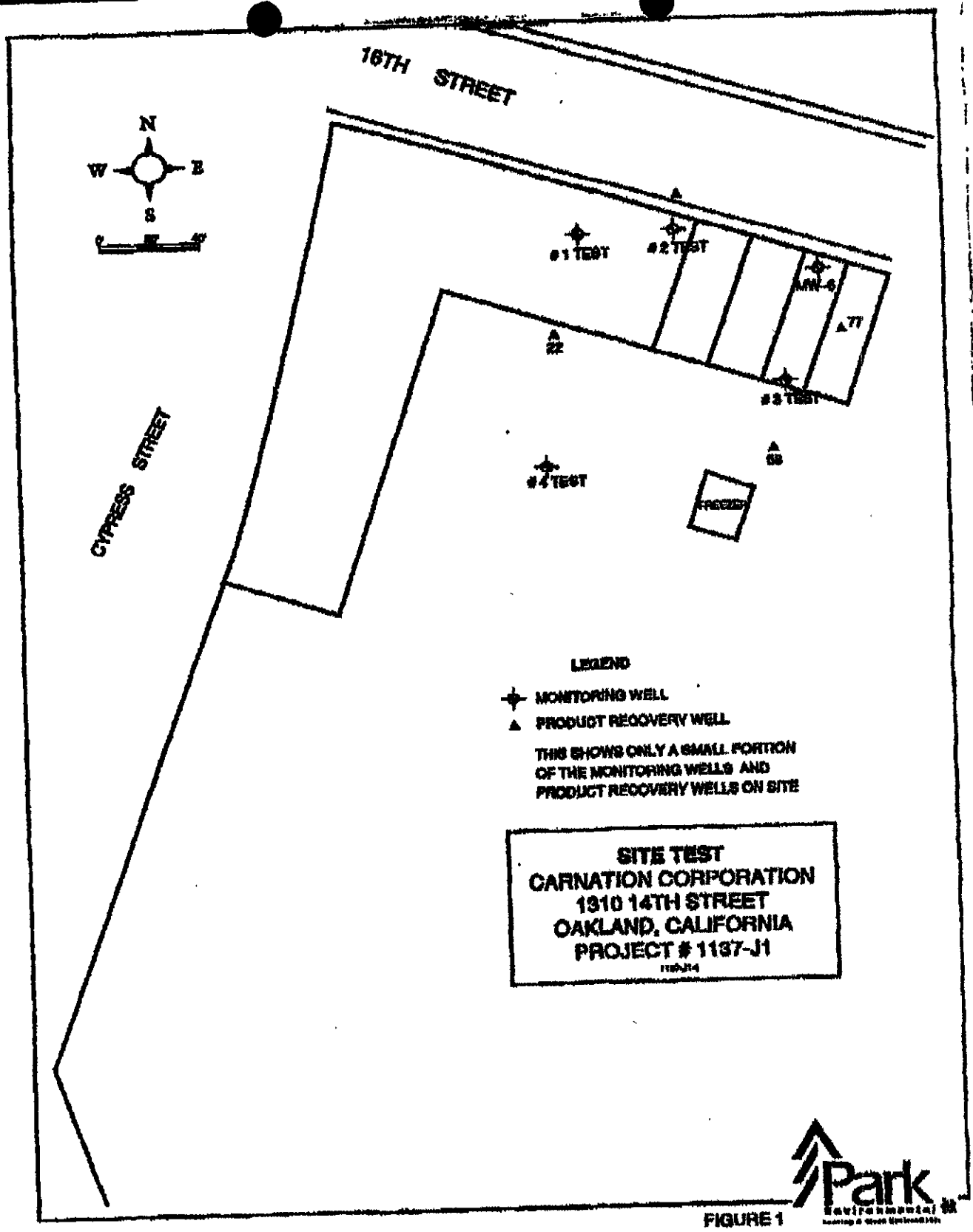
16TH STREET
N
W
E
S
#1 TEST
#2 TEST
#3 TEST
#4 TEST
#2
CYPRESS STREET
LEGEND
MONITORING WELL
PRODUCT RECOVERY WELL
THIS SHOWS ONLY A SMALL PORTION OF THE MONITORING WELLS AND PRODUCT RECOVERY WELLS ON SITE
SITE TEST
CARNATION CORPORATION
1310 14TH STREET
OAKLAND, CALIFORNIA
PROJECT # 1137-J1

FIGURE 1

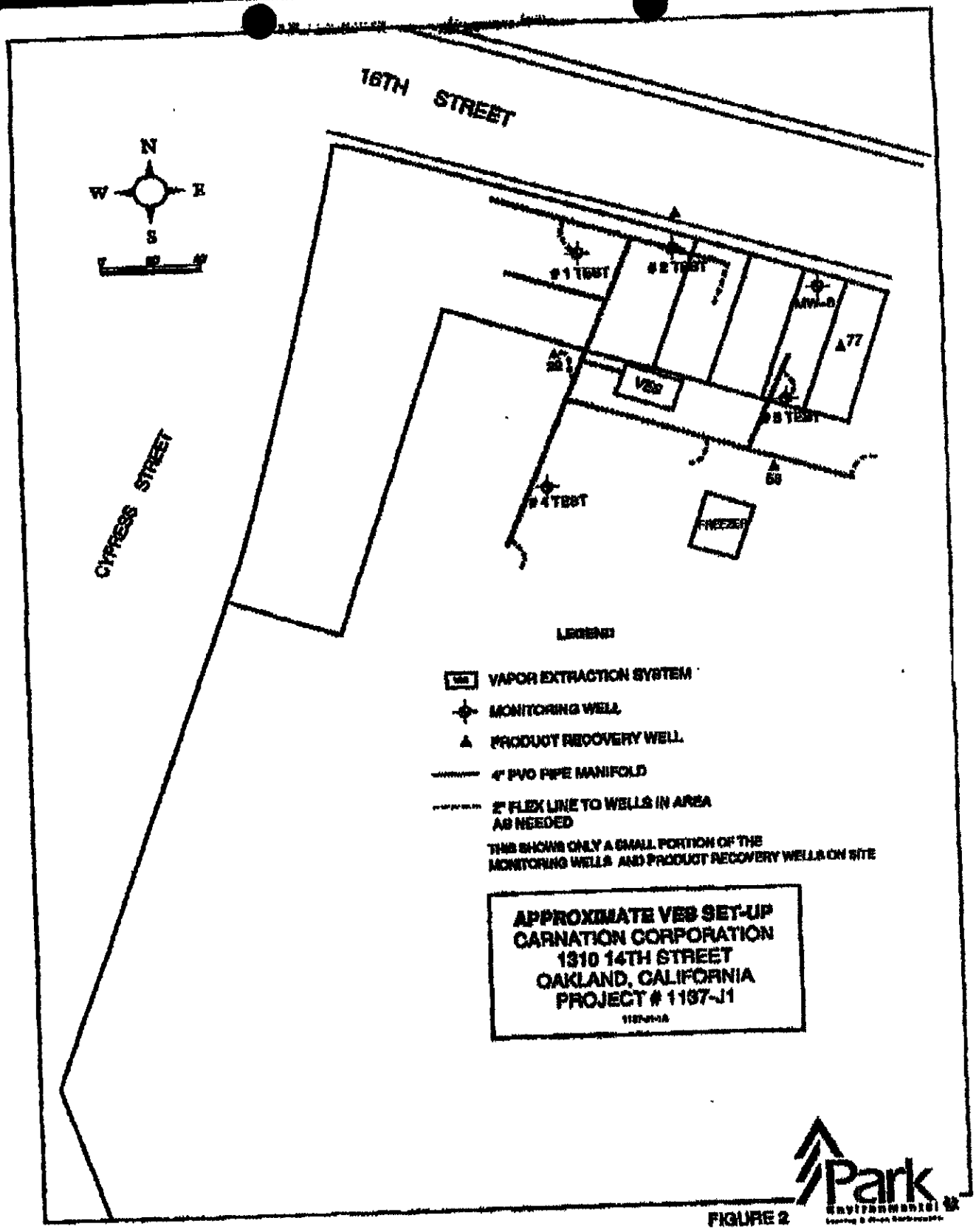
16TH STREET
CYPRESS STREET
N
W
E
S
#1 TEST
#2 TEST
#3 TEST
#4 TEST
VES
FREEZER
LEGEND
VAPOR EXTRACTION SYSTEM
MONITORING WELL
PRODUCT RECOVERY WELL
4" PVC PIPE MANIFOLD
2" FLEX LINE TO WELLS IN AREA AS NEEDED
THIS SHOWS ONLY A SMALL PORTION OF THE MONITORING WELLS AND PRODUCT RECOVERY WELLS ON SITE
APPROXIMATE VES SET-UP
CARNATION CORPORATION
1310 14TH STREET
OAKLAND, CALIFORNIA
PROJECT # 1197-J1

FIGURE 2

VAPOR TREATABILITY TESTING
CARNATION
JULY 22, 1992

V-90	36	45	42,000	1,500	2,100	250	1,200
MW-4	33	44	13,000	110	74	16	69
MW-25	32	42	10,000	72	160	16	97
MW-91	34	44	29,000	880	560	180	880

Reduced from HLA Dec 91 Qtr Report